

REMARKS

Favorable reconsideration of this application, in view of the present amendment and in light of the following discussion, is respectfully requested.

Claims 1-4, 7-14, 17-24, 27-30, 41-44, and 47-56 are currently pending, with Claims 51 and 52 being withdrawn as directed to non-elected inventions. Claims 5, 6, 15, 16, 25, 26, 45, and 46 have been cancelled without prejudice; and Claims 1, 10, 11, 20, 21, 30, 41, and 50 have been amended by the present amendment.

In the outstanding Office Action, Claims 1, 4-9, 11, 14-19, 21, 24-29, 41, 44-49, and 53-56 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent Application Publication No. 2003/0081265 to Watanabe (hereinafter “the ‘265 application”); and Claims 2, 3, 10, 12, 13, 20, 22, 23, 30, 42, 43, and 50 were rejected under 35 U.S.C. § 103(a) as being unpatentable over the ‘265 application, further in view of U.S. Patent Application Publication No. 2003/0202193 to Yokochi (hereinafter “the ‘193 application”).

Amended Claim 1 is directed to an image processing apparatus for generating graphics data according to picture description instructions based on original image data of full color, comprising: (1) a chromatic tester configured to determine whether a pixel of the original image data is chromatic or achromatic; (2) an obtainer configured to determine whether an image property of the pixel indicates the pixel is characteristic of a photograph, **when** the pixel is determined as achromatic by the chromatic tester, wherein said obtainer checks pixels in a predetermined area adjacent to the pixel in the original image data to obtain the image property of the pixel; (3) a color converter configured to convert the pixel into CMYK data for printing according to one of a plurality of predetermined converting conditions; and (4) a converting condition designator configured to designate (a) a first one of the predetermined converting conditions for the pixel determined as chromatic, (b) a second one of the predetermined converting conditions when the pixel is determined as achromatic

and the image property of the pixel indicates the pixel is not characteristic of a photograph, the second one of the predetermined converting conditions being different from the first one of the predetermined converting conditions, and (c) the first one of the predetermined converting conditions when the pixel is determined as achromatic **and** the image property of the pixel indicates the pixel is characteristic of a photograph, wherein the image property of the pixel is either one of a first image property of having at least one chromatic pixel in the pixels in the predetermined area and a second property of not having any chromatic pixel in the pixels in the predetermined area, and said converting condition designator designates a K monochrome converting condition to the pixel having the second image property.

Regarding the rejection of Claim 1 under 35 U.S.C. § 103(a), the Office Action asserts that the ‘265 application discloses everything in Claim 1, but “does not explicitly disclose an obtainer configured to determine whether an image property of the pixel indicates the pixel is characteristic of a photograph, when the pixel is determined as achromatic by the chromatic tester,”¹ but states that it would have been obvious to include such an obtainer because the ‘265 application detects photographic regions and detects both color and black and white regions.

Applicants respectfully submit that the rejection of Claim 1 is rendered moot by the present amendment to Claim 1.

The ‘265 application is directed to an image forming apparatus that includes a CCD sensor signal processor 4000, a scanner image processor 5000, an image handling section 6000, and a printer image processor 7000. In particular, as shown in Figure 7, the ‘265 application discloses a color converter 8002, a photograph region identification section 8003, and a color region identification section 8004. Further, the ‘265 application discloses that the photograph region identification section outputs a value Sp for each pixel, which indicates

¹ See pages 3 and 4 of the outstanding Office Action.

whether or not the pixel is part of a photograph. Further, the '265 application discloses that the color region identification section 8004 outputs a value Sc, which indicates whether the pixel is in a color region. Further, the '265 application discloses various embodiments in which the Sp and Sc values are used to process various regions of an image that may include different types of regions, such as photographs, color regions, and black and white regions. For example, see '265 Figure 8, which shows an image synthesizer 9014 that synthesizes an image based on the component regions. See also Figures 16-22, which illustrates the various possible regions in an image. In particular, Figures 19 and 22 show values for the Sp variable, which indicates the regions containing a photograph.

However, Applicants respectfully submit that the '265 application fails to disclose the converting condition designator recited in amended Claim 1. In particular, while the '265 application discloses the detection of color and photographic regions, and various processing for those regions separately, the '265 application does not disclose the detection of the combination of regions recited in Claim 1. For example, Claim 1 requires determining that a pixel is both achromatic **and** that the image property of the pixel indicates that the same pixel is not characteristic of a photograph. **Applicants respectfully submit that the '265 application fails to disclose the detection of such a pixel having these combined properties.** Rather, the '265 application merely discloses individually determining a photographic region and, separately, a color region. In this regard, Applicants note that the '265 application fails to disclose an obtainer configured to determine whether an image property of the pixel indicates the pixel is characteristics of a photograph, **when** the pixel is determined as achromatic by the chromatic tester, as recited in Claim 1. Applicants note that the function of the obtainer is **conditional** upon the pixel being determined as achromatic by the chromatic tester. Applicants submit that the '265 application does not disclose the

conditional nature of the step, but discloses that the pixels are separately evaluated to determine the color region and the photographic region automatically.

Further, as discussed above, the '265 application does not disclose that a particular converting condition is designated when a pixel is determined as achromatic and an image property of the pixel is not characteristic of a photograph, while a different predetermined converting condition is designated when the pixel is determined as achromatic and image property of the pixel indicates the pixel is characteristic of a photograph, as required by Claim 1.

Further, Applicants note that Claim 1 requires that the same predetermined converting condition (the first one) is designated for both chromatic pixels, as well as for achromatic pixels that are characteristic of a photograph. See the converting condition designator recited in Claim 1. Applicants respectfully submit that the '265 application does not teach or suggest that the same converting condition is designated for (1) chromatic pixels, and (2) achromatic pixels that are characteristic of a photograph. Rather, the '265 application merely discloses separate processing for photographic regions, color regions, and black and white regions. The '265 application does not teach or suggest the combined chromatic/photographic conditions recited in Claim 1, nor does it teach or suggest applying the same predetermined converting conditions to chromatic pixels as well as to achromatic pixels that are also part of a photograph, as required by Claim 1.

Further, regarding the remarks on page 4 of the outstanding Office Action that it would have somehow been obvious for one of ordinary skill in the art to include the obtainer recited in Claim 1, Applicants note that, while the '265 application discloses the detection of photographic regions and the detection of color regions within an image, it does not disclose determining that when a pixel is achromatic, whether it is characteristic of a photograph, as a combined condition. Applicants note that the Office Action appears to admit that the '265

application is deficient in the regard. Regarding obviousness, Applicants note that the Office Action does not provide any reason why one of ordinary skill in the art would be interested in this combined condition, since the '265 application, which discloses 10 embodiments, does not disclose any embodiment that considers this combined condition. Thus, it is unclear to Applicants why one of ordinary skill in the art would be interested in this combined condition.

Further, Applicants note that the '265 application does not disclose a converting condition designator that designates different predetermined converting conditions based on, *inter alia*, the combined condition obtained by the obtainer. Thus, even assuming *arguendo* that it might have been obvious for one of ordinary skill in the art to recognize the combined condition that a pixel is characteristic of a photograph and the pixel is achromatic, Applicants respectfully submit that there is no teaching or suggestion in the '265 application as to what image processing should be performed when this condition is recognized, as recited in Claim 1. There is no teaching or suggestion in the '265 application that the converting condition that is used when the pixel is achromatic and characteristic of a photograph should be the same condition that is used, for example, when the pixel is determined as chromatic, and different from the condition used when the pixel is determined as achromatic and not characteristic of a photograph, as required by Claim 1. As discussed above, the '265 application merely discloses the separate detection of a pixel being characteristic of a photograph and being achromatic, but does not teach or suggest any combined conditions regarding those two determinations. To suggest otherwise is merely speculation and hindsight reconstruction of Applicants' invention.

Further, Applicants respectfully submit that the '265 application fails to disclose that the image property of the pixel is either one of a first image property of having at least one chromatic pixel in the pixels in the predetermined area and a second property of not having

any chromatic pixel in the pixels in the predetermined area, and said converting condition designator designates a K monochrome converting condition to the pixel having the second image property, wherein said obtainer checks pixels in the predetermined area adjacent to the pixel in the original image data to obtain the image property of the pixel, as recited in amended Claim 1.

For the reasons stated above, Applicants respectfully submit that the rejection of Claim 1 (and all similarly rejected dependent claims) is rendered moot by the present amendment to Claim 1.

Independent Claim 11 is also directed to an image processing apparatus that includes converting condition designated means for designating various predetermined converting conditions, similar to that recited in Claim 1. As discussed above, the '265 application does not teach or suggest these limitations. Claim 21 is directed to a graphics data processing method, while Claim 41 is directed to a computable readable medium storing instructions for causing a computer to perform an image processing method, the method comprising steps similar to those recited in Claim 21. Accordingly, for the reasons stated above, Applicants respectfully submit that the rejections of Claims 11, 21, and 41 (and all similarly rejected dependent claims) are rendered moot by the present amendment to the independent claims.

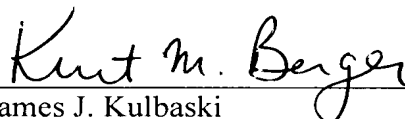
Regarding the rejection of dependent Claims 2, 3, 10, 12, 13, 20, 22, 23, 30, 42, 43, and 50 under 35 U.S.C. § 103(a), Applicants respectfully submit that the '193 application fails to remedy the deficiencies of the '265 application, as discussed above. Accordingly, Applicants respectfully submit that the rejections of the above-noted dependent claims are rendered moot by the present amendment.

Thus, it is respectfully submitted that independent Claims 1, 11, 21, and 41 (and all associated dependent claims) patentably define over any proper combination of the '265 and '193 applications.

Consequently, in view of the present amendment and in light of the above discussion, the outstanding grounds for rejection are believed to have been overcome. The application as amended herewith is believed to be in condition for formal allowance. An early and favorable action to that effect is respectfully requested.

Respectfully submitted,

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A handwritten signature in black ink, appearing to read "Kurt M. Berger", is written over a horizontal line.

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